

Latest developments in attosecond science : from mid-IR to soft X-ray spectroscopy and molecular diffraction imaging

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Lundi 28 septembre 2015 – 14h
Amphithéâtre SOLEIL

Electron recollision in an intense laser field is at the centre of attoscience research and gives rise to a variety of phenomena, ranging from electron diffraction to coherent soft X-ray emission. We have, over the years, developed intense sources of ultra-stable and waveform controlled mid-IR light to exploit ponderomotive scaling, quantum diffusion and quasi-static photo emission. I will briefly highlight the laser technology that enables this new direction of strong field research and our recent achievements in sub-Angstrom resolution imaging of an entire polyatomic molecule, the generation of isolated attosecond pulses at the carbon K-shell edge (284 eV) and application to soft X-ray absorption spectroscopy in condensed matter. In addition, direct mid-IR spectroscopy is used for imaging with micro to nano scale resolution.



Ce séminaire sera suivi d'une pause café

Formalités d'entrée : accès libre dans l'amphi du pavillon d'Accueil.

Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès)

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